AMENDMENTS TO THE SPECIFICATION

Amend the paragraph from page 22, line 17, to page 23, line 12, as follows:

-- Referring now to ~~Fig. 12~~ Figs. 12(a) and 12(b), before running the four-channel surround sound test, the impulse response for each of the satellite speakers in an open laboratory space is deconvolved using the MLS technique. The system is set up so that the four frequency responses can be compared. However, these measurements are not directly compared to those that are taken in the listening environment, since the microphone placement, sound pressure level at the microphone, and the surrounding acoustic impedances can all be different. Because all four responses are similar, they are plotted in an overlay fashion. Fig 12(a) shows the impulse response of an exemplary satellite speaker (in this case, the front-right speaker in the listening environment), as well as the four overlaid frequency response magnitudes. The time of flight delay of approximately 2.2 ms indicates that the distance between the microphone and the speaker in this test was approximately 70 cm. Verifying distances like speaker placement using the exponentially determined time of flight (TOF) is a good way to determine if the periodic cross-correlation is extracting the correct time base. The response feature arriving with a delay of approximately 4.3 ms indicates a first reflected signal. The sharp drop in frequency response at about 3 kHz will be the most difficult portion of the spectral response to whiten. Only a selective region of the impulse response is modeled. Selecting the region after the TOF and before the first reflection will isolate the portion of the response known as the anechoic response which the direct path between the monitor and the microphone. A minimum phase system has most of its energy around the beginning of the impulse response; therefore a system that includes more reflections in the region of interest becomes less minimum phase and has a greater error term. A minimum phase system is desirable to create a stable inverse filter. --